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NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Upper gastrointestinal (UGI) endoscopy: percentage of patients undergoing routine Barrett's surveillance with proper application of the Seattle protocol.

Source(s)

Bisschops R, Areia M, Coron E, Dobru D, Kaskas B, Kuvaev R, Pech O, Ragunath K, Weusten B, Familiari P, Domagk D, Valori R, Kaminski MF, Spada C, Bretthauer M, Bennett C, Senore C, Dinis-Ribeiro M, Rutter MD. Performance measures for upper gastrointestinal endoscopy: a European Society of Gastrointestinal Endoscopy (ESGE) Quality Improvement Initiative. Endoscopy. 2016 Sep;48(9):843-64. PubMed

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients undergoing routine Barrett's surveillance with proper application of the Seattle protocol.

Rationale

The Importance of Quality

Tens of millions of people undergo endoscopic procedures every year in Europe. Endoscopy is the pivotal investigation in the diagnosis of gastrointestinal pathology and a powerful tool in its management. High quality endoscopy delivers better health outcomes and a better patient experience (Rutter & Rees, 2014), yet there is clinically significant variation in the quality of endoscopy currently delivered in endoscopy units (Rajasekhar et al., 2012; Baillie & Testoni, 2007; Cotton, 2011; Williams et al., "Risk factors,"

2007; Williams et al., "Are we meeting," 2007).

An example of this is post-colonoscopy colorectal cancer (PCCRC). It is known that the majority of PCCRCs arise from missed lesions (premalignant polyps or cancers) or incomplete polypectomy (Pabby et al., 2005; Robertson et al., 2014). Back-to-back colonoscopy studies show that 22% of all adenomas are missed (van Rijn et al., 2006; Van Gelder et al., 2004; Pickhardt et al., 2003; Rockey et al., 2005; Miller & Lehman, 1978; Pickhardt et al., 2004), and that there is a three- to sixfold variation in adenoma detection rates between endoscopists (Barclay et al., 2006; Chen & Rex, 2007).

Even when polyps are found, removal may be incomplete: the Complete Adenoma REsection (CARE) study concluded that 10% of nonpedunculated polyps of 5 to 20 mm and 23% of nonpedunculated polyps of 15 to 20 mm were incompletely resected (Pohl et al., 2013). Furthermore, low cecal intubation rates and poor bowel preparation regimens may explain the relative failure of colonoscopy to protect against proximal colorectal cancer that was found in many studies (Singh et al., "The reduction," 2010; Baxter et al., 2009; Brenner et al., 2010; Baxter et al., 2012; Lakoff et al., 2008; Singh et al., "Rate and predictors," 2010; Brenner et al., 2006; Brenner et al., 2011). This results in clinically important differences in quality of care and patient outcomes: a recent study in the United Kingdom (UK) demonstrated a more than fourfold variation in PCCRC rates between hospitals (Valori et al., 2014).

In the upper gastrointestinal (UGI) tract, gastric cancers and precursor lesions are frequently missed: in one series, 7.2% of patients with gastric cancer did not have the lesion detected at endoscopy performed in the preceding 1 year. Of these cases, almost three quarters were felt to be due to endoscopist error (Yalamarthi et al., 2004). Equally, in endoscopic retrograde cholangiopancreatography (ERCP), which is one of the most complex and highest risk procedures performed regularly in endoscopy practice, there is evidence of wide variation in both completion and complication rates (Raftopoulos et al., 2010; Cohen et al., 2006; Faigel et al., 2006; Park & Cohen, 2012; Gavin et al., 2013; Enochsson et al., 2010; Baron et al., 2006; Cotton et al., 2009).

Rationale

> Accurate surveillance with optimal detection of Barrett's neoplasia
> Allowing an interval between surveillance endoscopies that is according to the guidelines

Evidence for Rationale

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Primary Health Components

Upper gastrointestinal (UGI) endoscopy; Barrett's surveillance; Seattle protocol

Denominator Description

All Barrett's surveillance endoscopies (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Procedures in the denominator where biopsies were taken in complete accordance with the extensive Seattle protocol (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

A systematic review of the clinical research literature (e.g., Cochrane Review)

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Ambulatory Procedure/Imaging Center

Hospital Outpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

Statement of Acceptable Minimum Sample Size

Specified

Target Population Age

Unspecified

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Yearly

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Diagnostic Evaluation

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
All Barrett's surveillance endoscopies

Exclusions

Presence of severe esophagitis defined as Los Angeles classification of grade C or higher
Therapeutic procedures for treatment of Barrett's esophagus
Work-up endoscopy for known Barrett's neoplasia when a visible lesion is present that is defined as a type IIa, IIc, Is, or a more advanced lesion according to the Paris classification
Patients with contraindications for biopsies, such as coagulopathy or the use of anticoagulants

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Procedures in the denominator where biopsies were taken in complete accordance with the extensive Seattle protocol, as described below

Note:

> Record the Prague classification.
> Record the use of the Seattle protocol with four biopsies taken every 2 centimeters (cm) along the circumferential extent of the Barrett's epithelium. Biopsies should be collected in separate jars for targeted biopsies and per level for random biopsies. For example, in a C4M5 Barrett's segment, at least 12 biopsies should be taken, i.e., four at levels 0, 2, and 4 cm, and these should be put into three different jars numbered according to the biopsy location.

Exclusions

Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Electronic health/medical record

Paper medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Prescriptive Standard

Minimum standard*: 90%

Target standard**: 90%

Note: Refer to the original measure documentation for additional information on standards.

**Minimum Standard*: A minimum defined level of performance within a performance measure.

***Target Standard*: A desirable/aspirational level of performance within a performance measure.

Evidence for Prescriptive Standard

Bisschops R, Areia M, Coron E, Dobru D, Kaskas B, Kuvaev R, Pech O, Ragunath K, Weusten B, Familiari P, Domagk D, Valori R, Kaminski MF, Spada C, Bretthauer M, Bennett C, Senore C, Dinis-Ribeiro M, Rutter MD. Performance measures for upper gastrointestinal endoscopy: a European Society of Gastrointestinal Endoscopy (ESGE) Quality Improvement Initiative. Endoscopy. 2016 Sep;48(9):843-64. PubMed

Identifying Information

Original Title

Use of the Seattle protocol in Barrett's surveillance.

Measure Collection Name

Upper Gastrointestinal Endoscopy Performance Measures

Measure Set Name

Management of Pathology

Submitter

European Society of Gastrointestinal Endoscopy - Medical Specialty Society

Developer

European Society of Gastrointestinal Endoscopy - Medical Specialty Society

Funding Source(s)

European Society of Gastrointestinal Endoscopy (ESGE) and United European Gastroenterology (UEG)

Composition of the Group that Developed the Measure

The European Society of Gastrointestinal Endoscopy (ESGE) Quality Improvement Committee (QIC) membership comprises the QIC chairperson, ESGE president and president-elect, chairs of the other three ESGE committees (guidelines, education and research) and chairs of QIC working groups.

Financial Disclosures/Other Potential Conflicts of Interest

Competing Interests

R. Bisschops has received consultancy fees from Boston Scientific (2015); speaker's fees from Covidien (2009 to 2016) and Norgine (2015); speaker's fee and hands-on training sponsorship from Olympus Europe (2013 to 2014); consultancy fees, speaker's fee, and research support from Pentax Europe (2008 to 2016) and Fujifilm (2013 to 2016); research support from Cook Medical (2015 to 2016); hands-on training sponsorship from Erbe (2013 to 2015); and an editorial fee from Thieme Verlag as coeditor of *Endoscopy*.
E. Coron has received consultancy fees from Mauna Kea Technologies (2011 to 2015) and Covidien (2015 to 2016); speaker's fees from Olympus and Cook Medical; and receives research support from Fujifilm and Mauna Kea Technologies.
O. Pech has received speaker's fees from Medtronic, Boston Scientific, Olympus, Fujifilm, and Norgine.
K. Ragunath has received educational grants, speaker honorarium, and consultancy fees from Olympus; educational grants and research support from COOK; educational grants and research support from Covidien; consultancy fees and research support from Boston Scientific; research support from Astra Zeneca; research support from Pentax.
B. Weusten has received financial support for institutional review board (IRB)-approved studies from GI Solutions and Covidien, ERBE, and C2Therapeutics.
R. Valori is a director of Quality Solutions for Healthcare, a company providing consultancy for improving quality in healthcare, and of AnderVal Ltd., a company providing endoscopy skills training.
C. Spada has received training support from Given Imaging (2013 and 2014).
M. Bretthauer receives funds from Thieme Verlag for editorial work for *Endoscopy*.
C. Bennett owns and works for Systematic Research Ltd.; and received a consultancy fee from ESGE to provide scientific, technical, and methodological expertise for the present project.
C. Senore's department receives PillCam Colon devices from Covidien-Given to conduct studies, and loaner Fuse systems from EndoChoice.
M. Dinis-Ribeiro receives funds from Thieme Verlag for editorial work for Endoscopy; his department has received support from Olympus for a teaching protocol (from August 2014 to July 2015).
M. D. Rutter's department receives research funding from Olympus for a colitis surveillance trial (2014 to present).
M. Areia, D. Dobru, B. Kaskas, R. Kuvaev, P. Familiari, D. Domagk, and M. F. Kaminski have no competing interests.

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2016 Sep

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

Measure Availability

Source available from the European Society of Gastrointestinal Endoscopy (ESGE) Web site .

For more information, contact ESGE at c/o Hamilton Services GmbH, Landwehr Str. 9, 80336 Munich Germany; Phone: + 49 - 89 - 907 7936-11; Fax: + 49 - 89 - 907 7936-20; E-mail: secretariat@esge.com; Web site: www.esge.com .

Companion Documents

The following is available:

Rutter MD, Senore C, Bisschops R, Domagk D, Valori R, Kaminski MF, Spada C, Bretthauer M, Bennett C, Bellisario C, Minozzi S, Hassan C, Rees C, Dinis-Ribeiro M, Hucl T, Ponchon T, Aabakken L, Fockens P. The European Society of Gastrointestinal Endoscopy Quality Improvement Initiative: developing performance measures. Endoscopy. 2016 Jan;48(1):81-9. Available from the European Society of Gastrointestinal Endoscopy (ESGE) Web site .

NQMC Status

This NQMC summary was completed by ECRI Institute on December 14, 2016. The information was verified by the measure developer on February 13, 2017.

Copyright Statement

Production

Source(s)

Bisschops R, Areia M, Coron E, Dobru D, Kaskas B, Kuvaev R, Pech O, Ragunath K, Weusten B, Familiari P, Domagk D, Valori R, Kaminski MF, Spada C, Bretthauer M, Bennett C, Senore C, Dinis-Ribeiro M, Rutter MD. Performance measures for upper gastrointestinal endoscopy: a European Society of Gastrointestinal Endoscopy (ESGE) Quality Improvement Initiative. Endoscopy. 2016 Sep;48(9):843-64. PubMed

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